



U.S. Department of Energy
Energy Efficiency and Renewable Energy

Energy Conservation Standards for Commercial Unitary Air Conditioners and Heat Pumps

ANOPR Public Meeting

Rulemaking Overview

**Building Technologies Program
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy**

September 30, 2004



Purpose of the Public Meeting

- To present methodologies and characterize results for analyses to date
- To discuss specific issues related to each analysis
- To seek input from attendees on methodologies, assumptions and data sources
- To describe upcoming analyses and next steps

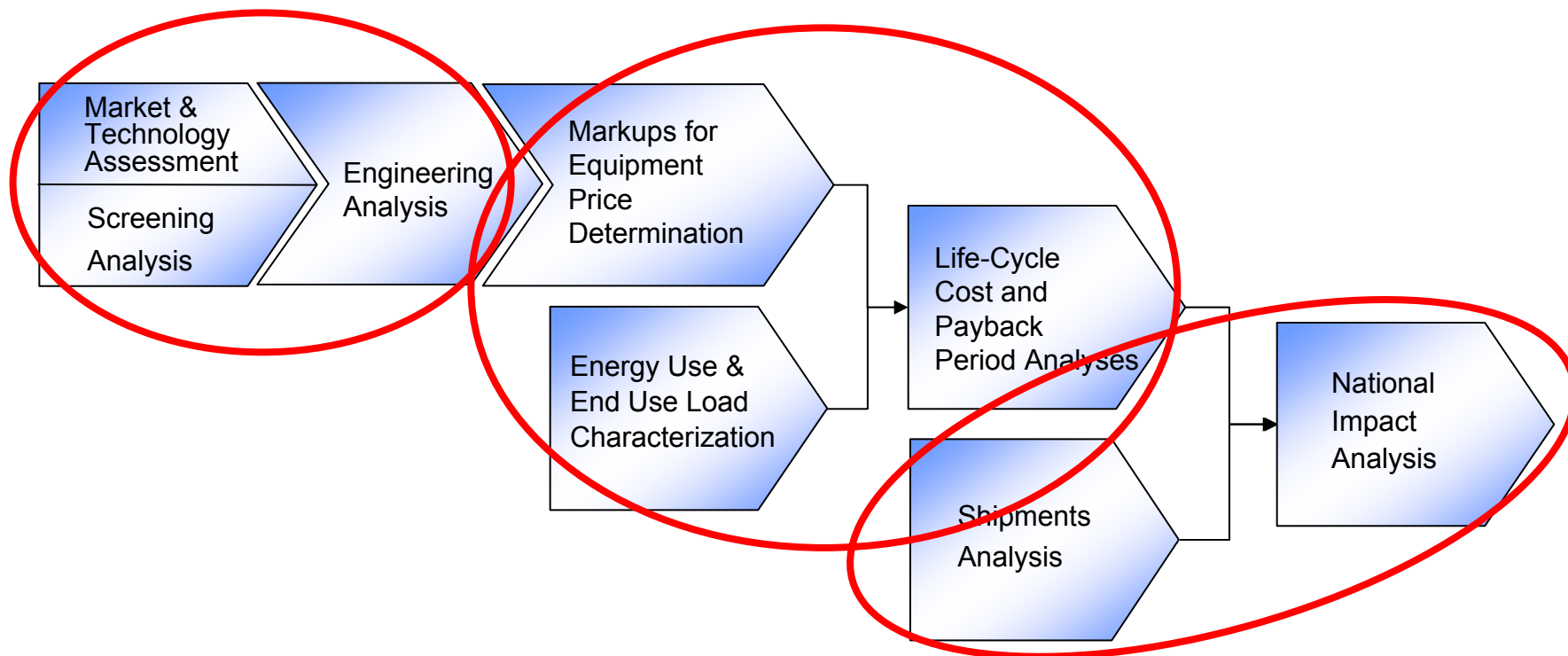
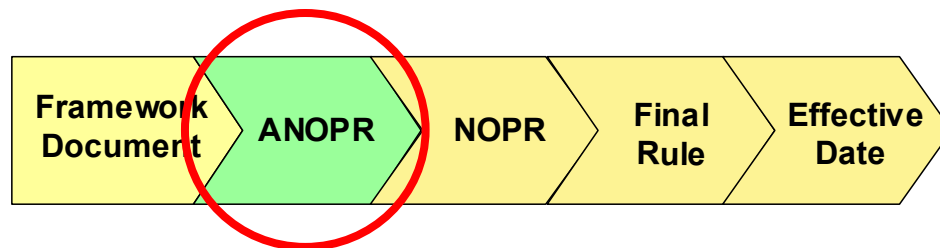


The Energy Policy and Conservation Act (EPCA) directs DOE to consider seven factors when setting energy conservation standards

Factor	Analysis
1. Economic impact on consumers and manufacturers	Life-cycle cost analysis Manufacturer impact analysis
2. Lifetime operating cost savings	Life-cycle cost analysis
3. Total projected energy savings	National impact analysis
4. Impact on utility or performance	Screening Analysis Engineering analysis
5. Impact of any lessening of competition	Manufacturer impact analysis
6. Need for national energy conservation	National impact analysis
7. Other factors the Secretary considers relevant	Environmental assessment Utility impact analysis Employment impact analysis

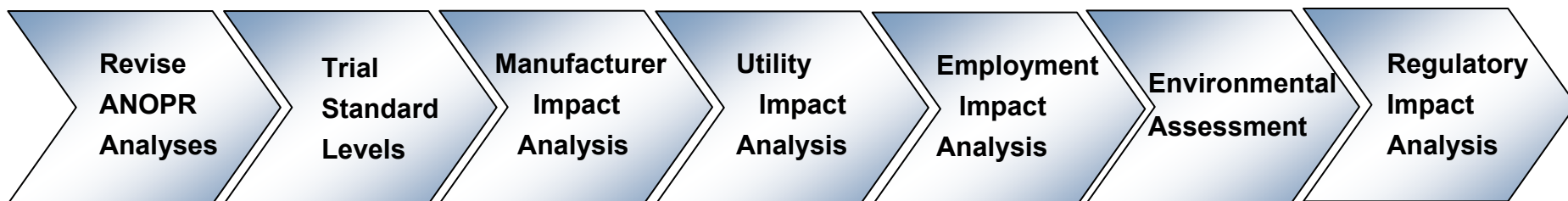
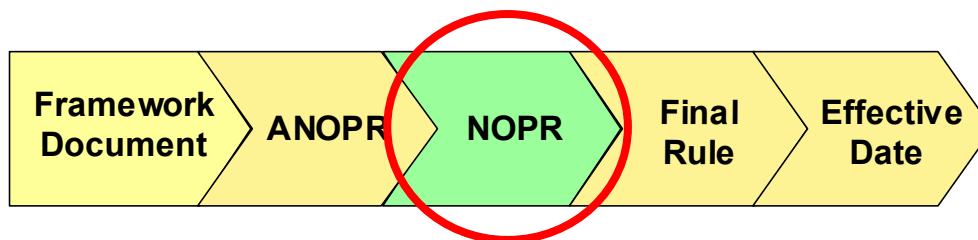


Steps in the Standards Rulemaking: ANOPR





Steps in the Standards Rulemaking: NOPR





Issues for Public Comment

1. Approaches to Analyses for Split Systems, Heat Pumps, and Niche Equipment
2. Alternative Refrigerant Analysis
3. Candidate Standards Levels
4. Design Option Analysis and Maximum Energy Efficiency Levels
5. Industrial Buildings
6. Economizer Performance
7. Fan Energy Consumption
8. Equipment Markups
9. Hourly Based Electricity Prices
10. Forecasts of Electricity Prices
11. Equipment Lifetime
12. Maximum Market Share of Commercial Unitary Air Conditioning Equipment
13. Future Building Types Using Commercial Unitary Equipment
14. Customer Sub-Groups
15. Effective Date of New Standards and Phaseout Date of R-22 Refrigerant
16. Independent Expert Third-Party Reviews
 - a. Sample of Buildings
 - b. BLAST and CBECS Estimates of Energy Use
 - c. Supply Fan Energy Use While Ventilating
 - d. Incremental Markups
17. Effect of Income Taxes on Life-Cycle Cost
18. Technologies that Affect Full- or Part-Load Performance
19. Environmental Assessment
20. Rebound Effect



Comments from Participants

- **Participants are invited to provide summary comments or statements**
- **Participants are invited to raise additional issues for discussion today**
- **ANOPR comment period open through November 12, 2004**